

# General Index of Articles and Editorials

(COMBUSTION—Vol. 7, No. 1, July, 1935, to and including Vol. 7, No. 12, June, 1936)

## EDITORIALS—

	PAGE
A "Close-Up" of the District Heating Situation . . . . .	(Sept. 1935) 9
A Demand for Young Engineers . . . . .	(Dec. 1935) 9
Boiler Installation on the "Queen Mary" . . . . .	(June 1936) 17
Claustic Embrittlement . . . . .	(Jan. 1936) 11
Combustion Control in the Smaller Plants . . . . .	(July 1935) 9
Contribution to Piping Knowledge . . . . .	(Oct. 1935) 9
Cross-Drum Boiler Circulation . . . . .	(Oct. 1935) 9
Dust Treated Coal . . . . .	(Nov. 1935) 9
E.P.C.D. Criticized . . . . .	(Aug. 1935) 7
Federal Aid to Industry . . . . .	(July 1935) 9
First Cost Unduly Stressed . . . . .	(Apr. 1936) 15
Fitting the Program to the Time . . . . .	(Dec. 1935) 9
Interpreting the TVA Decision . . . . .	(Mar. 1936) 19
Looking Ahead Regardless of Capacity Adequacy . . . . .	(Aug. 1935) 7
Frederick Rollins Low . . . . .	(Feb. 1936) 11
Midwest Power Conference . . . . .	(Mar. 1936) 19
New Light on Turbine Blade Deposits . . . . .	(Dec. 1935) 9
New York to Survey Atmospheric Pollution through Federal Aid . . . . .	(Aug. 1935) 7
Not a True Index . . . . .	(Mar. 1936) 19
Observations . . . . .	(Sept. 1935) 9
Operating Procedure . . . . .	(Nov. 1935) 9
Our Petroleum Reserves . . . . .	(Jan. 1936) 11
Out-Moded Terms . . . . .	(May 1936) 15
Record Central Station Output . . . . .	(Jan. 1936) 11
Selection of Accessories . . . . .	(July 1935) 9
Standardized Pressures and Temperatures . . . . .	(June 1936) 17
Standardizing Symbols . . . . .	(Sept. 1935) 9
Story of Conners Creek, The . . . . .	(Nov. 1935) 9
Support for Research . . . . .	(May 1936) 15
Treated Coal vs. Performance . . . . .	(May 1936) 15
Viewing the Utility Situation . . . . .	(Oct. 1935) 9
Why Defer Your Professional Engineer's License? . . . . .	(Apr. 1936) 15
World Power Conference Program, The . . . . .	(June 1936) 17

## ARTICLES—

A Control Chart for Interpretation of Coal Sampling Data. By T. W. Guy . . . . .	(Dec. 1935) 28
Action of Solutions of Sodium Silicate and Sodium Hydroxide at 250 C on Steel under Stress. By W. C. Schroeder and A. A. Berk . . . . .	(Feb. 1936) 29
Alloy Steels for Temperatures over 800 F in Boiler Drums, Superheaters and Steam Piping. By G. K. Herzog . . . . .	(July 1935) 21
Application of Colloidal Chemistry to Boiler Water Conditioning. By L. Drew Betz and Robert T. Sheen . . . . .	(May 1936) 39
Boiler Design as Influenced by Factors External to Heat Absorbing Surface. By Otto de Lorenzi and L. J. Marshall . . . . .	(Nov. 1935) 27
Boilermaker as an Employee within Workmen's Compensation Statutes. By Leslie Childs . . . . .	(May 1936) 35
Burning Appalachian Coals in Pulverized Form. By Henry Kreisinger . . . . .	(Dec. 1935) 20
Cantiene Boiler, The . . . . .	(Mar. 1936) 40
Cause and Prevention of Turbine-Blade Deposits. By Frederick G. Straub . . . . .	(Dec. 1935) 23
Cinder and Dust Elimination at the Washington Heating Plant. By F. P. Fairchild and C. F. Dixon . . . . .	(Aug. 1935) 13
Coal Sampling Methods of The Detroit Edison Company. By A. W. Thorson . . . . .	(Oct. 1935) 10
Combustion Control . . . . .	(Oct. 1935) 30
Combustion Control and Controllers. By Harvey C. Mittendorf . . . . .	(Mar. 1936) 20
Convenient Method of Determining Moisture in Coal. By Walter H. Wood . . . . .	(Aug. 1935) 16
Coordination of Boiler Auxiliaries. By A. F. Spitzglass and G. K. O'Connor . . . . .	(June 1936) 25
Corrosion of Iron in the Presence of and in the Absence of Oxygen (A Discussion) . . . . .	(Dec. 1935) 22
Determining Oxygen in Boiler Feedwater. By A. C. Dresher . . . . .	(May 1936) 33
District Steam Heating. By Roger D. DeWolf . . . . .	(Sept. 1935–Nov. 1935) 33
Effect of Type of Surface on Radiation Loss from Furnaces. By B. J. Cross . . . . .	(Jan. 1936) 33
Efficiency of a Reaction Turbine Stage from Static Model Tests with Air. By W. R. New . . . . .	(Jan. 1936) 27
Estimating Grindability of Coal. By H. F. Yancey and M. R. Geer . . . . .	(Mar. 1936) 37
Factors in Selection of Coal for Underfeed Stokers . . . . .	(Nov. 1935) 33
Further Details of the Tir John Power Station . . . . .	(Sept. 1935) 15
Further Discussion on James Watt . . . . .	(Apr. 1936) 40
Graphical Analysis of Combustion Losses. By K. M. Holaday . . . . .	(Aug. 1935) 17
Illinois Coals—Their Classification and Analyses. By P. B. Place . . . . .	(Sept. 1935) 29
Indiana Coals—Their Classification and Analyses. By P. B. Place . . . . .	(Oct. 1935) 27
Influence of Time on Creep of Steels. By A. E. White, C. L. Clark and R. L. Wilson . . . . .	(Aug. 1935) 25
Liability for Patent Infringement. By Leo T. Parker . . . . .	(Dec. 1935) 33
Modernizing the Conners Creek Power Plant. By Sabin Crocker . . . . .	(Nov. 1935–June 1936) 10
Part I . . . . .	(Nov. 1935) 10
Part II. Stokers and Combustion Air Control . . . . .	(Dec. 1935) 10
Part III. Boilers and Steam Generating Equipment . . . . .	(Jan. 1936) 12
Part IV. Plant Operating Cycle and Heat Balance . . . . .	(Feb. 1936) 12
Part V. Piping (Part 1) . . . . .	(Mar. 1936) 27
Part VI. Piping (Part 2) . . . . .	(Apr. 1936) 27
Part VII. Condensers, Feed-Heaters and Their Auxiliaries . . . . .	(May 1936) 23
Part VIII. Models and Test Performance . . . . .	(June 1936) 27
John Morrell & Co. Adds Large Steam Generating Unit to Its Ottumwa Plant. By Paul R. Walter . . . . .	(Feb. 1936) 35
New Boiler Plant Effects Savings at Wathen Distillery. By E. B. Rodman . . . . .	(May 1936) 37
Parallel Operation of Fans. By H. F. Hagen . . . . .	(Apr. 1936) 24
Pennsylvania Bituminous Coals—Their Classification and Analyses. By P. B. Place . . . . .	(Apr. 1936) 33
Pennsylvania Bituminous Coals—II. Medium- and Low-Volatile Coals. By P. B. Place . . . . .	(June 1936) 33
Plant Modernization. By Marion Penn . . . . .	(July 1935) 25
Possibilities of Boilers with Forced Circulation. By Dr. Friedrich Munzinger . . . . .	(Feb. 1936) 23
Pressure Distribution in a Long-Throat Steam Nozzle. By A. H. Zerban and R. M. Johnston . . . . .	(Aug. 1935) 23
Progress in Power . . . . .	(Jan. 1936) 40
Radiography as Applied to Welded Boiler Drums. By E. C. Chapman and W. L. Martin . . . . .	(June 1936) 18
Recording of Turbine Blade Erosion. By Robert P. Hooper . . . . .	(Oct. 1935) 35
Some Notes on Patent Law for Engineers. By Leo T. Parker . . . . .	(Aug. 1935) 34
Spontaneous Combustion in Coal Storage Piles. By Elmer L. Lindseth and F. J. Leonhard . . . . .	(Sept. 1935) 19
Statistical Analysis of Boiler Accidents. By J. P. H. deWindt . . . . .	(Aug. 1935) 31
Strength and Flexibility of Corrugated and Creased-Bend Piping. By Robert L. Dennison . . . . .	(Oct. 1935) 19
Superimposed High-Pressure Plant Extension of the Rochester Gas & Electric Corporation. By Irvin G. McChesney . . . . .	(Apr. 1936) 16
Superposition—An Economic Study. By E. H. Krieg . . . . .	(Aug. 1935) 8
Trends in Design of Large High-Pressure High-Temperature Boiler Units. By F. H. Rosencrantz . . . . .	(May 1936) 16
Value of Proper Furnace Equipment to Power Plant Economy. By M. K. Drewry . . . . .	(June 1936) 39
Versatility of Traveling Grate Stokers. By Otto de Lorenzi . . . . .	(Sept. 1935) 23
Virginia Coals—Their Classification and Analyses. By P. B. Place . . . . .	(July 1935) 29
James Watt, Engineer and Scientist. By H. R. Taube . . . . .	(Jan. 1936) 23
James Watt (A Discussion). By David Brownlie and H. R. Taube . . . . .	(Mar. 1936) 43
What a Third of a Century of Turbine Lubrication Experience Shows. By Charles H. Bromley . . . . .	(July 1935) 10
When the Power Load Grows. Part II. By A. G. Christie . . . . .	(July 1935) 13

## AUTHORS—

Berk, A. A.—Action of Solutions of Sodium Silicate and Sodium Hydroxide at 250 C on Steel under Stress . . . . .	(Feb. 1936) 29
Betz, L. Drew—Application of Colloidal Chemistry to Boiler Water Conditioning . . . . .	(May 1936) 39
Bromley, Charles H.—What a Third of a Century of Turbine Lubrication Experience Shows . . . . .	(July 1935) 10
Brownlie, David—James Watt (A Discussion) . . . . .	(Mar. 1936) 43

	PAGE
Chapman, E. C.—Radiography as Applied to Welded Boiler Drums.....	18
Childs, Leslie—Boilermaker as an Employee within Workmen's Compensation Statutes.....	35
Christie, A. G.—When the Power Load Grows—Part II.....	13
Clark, C. L.—Influence of Time on Creep of Steels.....	25
Crocker, Sabin—Modernizing the Conners Creek Power Plant. Parts 1 to 8.....	(Nov. 1935–June 1936)
See Modernizing the Conners Creek Power Plant—Article Index	
Cross, B. J.—Effect of Type of Surface on Radiation Loss from Furnaces.....	33
de Lorenzi, Otto—Boiler Design as Influenced by Factors External to Heat Absorbing Surface.....	27
Versatility of Traveling Grate Stokers.....	(Sept. 1935)
Dennison, R. L.—Strength and Flexibility of Corrugated and Creased-Bend Piping.....	19
de Windt, J. P. H.—Statistical Analysis of Boiler Accidents.....	(Aug. 1935)
DeWolf, Roger D.—District Steam Heating. Parts 1 to 3.....	31
See District Steam Heating—Article Index	
Dixon, C. F.—Cinder and Dust Elimination at the Washington Heating Plant.....	13
Dresher, A. C.—Determining Oxygen in Boiler Feedwater.....	33
Drewry, M. K.—Value of Proper Furnace Equipment to Power Plant Economy.....	39
Fairchild, F. P.—Cinder and Dust Elimination at the Washington Heating Plant.....	13
Geer, M. R.—Estimating Grindability of Coal.....	37
Guy, T. W.—A Control Chart for Interpretation of Coal Sampling Data.....	28
Hagen, H. F.—Parallel Operation of Fans.....	24
Herzog, G. K.—Alloy Steels for Temperatures over 800 F in Boiler Drums, Superheaters and Steam Piping.....	21
Holaday, K. M.—Graphical Analysis of Combustion Losses.....	17
Hooper, Robert P.—Recording of Turbine Blade Erosion.....	(Oct. 1935)
Johnston, R. M.—Pressure Distribution in a Long-Throat Steam Nozzle.....	35
Kreisinger, Henry—Burning Appalachian Coals in Pulverized Form.....	20
Krieg, E. H.—Superposition—An Economic Study.....	8
Leonhard, F. J.—Spontaneous Combustion in Coal Storage Piles (Sept. 1935).....	19
Lindseth, Elmer L.—Spontaneous Combustion in Coal Storage Piles.....	19
Marshall, L. J.—Boiler Design as Influenced by Factors External to Heat Absorbing Surface.....	(Nov. 1935)
Martin, W. L.—Radiography as Applied to Welded Boiler Drums (June 1936).....	18
Mittendorf, Harvey C.—Combustion Control and Controllers.....	20
Munzinger, Dr. Friedrich—Possibilities of Boilers with Forced Circulation.....	23
McChesney, Irvin G.—Superimposed High-Pressure Plant Extension of the Rochester Gas & Electric Corporation.....	(Apr. 1936)
New, Winston R.—Efficiency of a Reaction Turbine Stage from Static Model Tests with Air.....	27
O'Connor, G. K.—Coordination of Boiler Auxiliaries.....	(June 1936)
Parker, Leo T.—Liability for Patent Infringement.....	33
Some Notes on Patent Law for Engineers.....	(Aug. 1935)
Penn, Marion—Plant Modernization.....	25
Place, P. B.—Illinois Coals—Their Classification and Analyses (Sept. 1935).....	29
Indiana Coals—Their Classification and Analyses.....	(Oct. 1935)
Pennsylvania Bituminous Coals—Their Classification and Analyses.....	(Apr. 1936)
Pennsylvania Bituminous Coals—II. Medium- and Low-Volatile Coals.....	33
Virginia Coals—Their Classification and Analyses.....	(July 1935)
Rodman, E. B.—New Boiler Plant Effects Savings at Wathen Distillery.....	37
Rosencrantz, F. H.—Trends in Design of Large High-Pressure High-Temperature Boiler Units.....	16
Schroeder, W. C.—Action of Solutions of Sodium Silicate and Sodium Hydroxide at 250 C on Steel under Stress.....	(Feb. 1936)
Sheen, Robert T.—Application of Colloidal Chemistry to Boiler Water Conditioning.....	39
Spitzglass, A. F.—Coordination of Boiler Auxiliaries.....	(June 1936)
Straub, Frederick G.—Cause and Prevention of Turbine-Blade Deposits.....	(Dec. 1935)
Taube, H. R.—James Watt, Engineer and Scientist.....	23
James Watt (A Discussion).....	(Mar. 1936)
Thorson, A. W.—Coal Sampling Methods of The Detroit Edison Company.....	(Oct. 1935)
Walter, Paul R.—John Morrell & Co. Adds Large Steam Generating Unit to Its Ottumwa Plant.....	35
White, A. E.—Influence of Time on Creep of Steels.....	(Aug. 1935)
Wilson, R. L.—Influence of Time on Creep of Steels.....	(Aug. 1935)
Wood, Walter H.—Convenient Method of Determining Moisture in Coal.....	(Aug. 1935)
Yancey, H. F.—Estimating Grindability of Coal.....	(Mar. 1936)
Zerban, A. H.—Pressure Distribution in a Long-Throat Steam Nozzle.....	(Aug. 1935)
<b>STEAM ENGINEERING ABROAD</b>	
Accumulations Rendered Low-Water Alarm Inoperative.....	(Sept. 1935)
Addition of Water to Slack.....	(Dec. 1935)
Air Lift for Ash Sluicing.....	(Dec. 1935)
An 80,000-Kva, 3000-Rpm Turbine-Generator.....	(Jan. 1936)
A New Dust Precipitator.....	(Jan. 1936)
A Unique Method of Low-Temperature Carbonization.....	(Sept. 1935)
Balancing Back-Pressure Operation.....	(Aug. 1935)
Battersea Performance.....	(Jan. 1936)
British Electrical Output 12.1 Per Cent Ahead of 1934.....	(Nov. 1935)
British Power Station Extensions.....	(Aug. 1935)
British Station Installing 1900-Lb Boilers.....	(Oct. 1935)
Circulation in Cross-Drum Boilers.....	(Jan. 1936)
Coal Consumption of Different Countries.....	(Jan. 1936)
Coal Used in Motor Transport.....	(Aug. 1935)
Combined Electricity and Heating Service for British Industrial Community.....	(Dec. 1935)
Combustion Studies by Models.....	(June 1936)
Concrete Cooling Towers.....	(Oct. 1935)
Control of Energy Production Proposed in Germany.....	(Mar. 1936)
Determining Ash Content of Coal.....	(Apr. 1936)
Determining Sulphur in the Atmosphere.....	(July 1935)
Direct Drive from Turbine.....	(Feb. 1936)
District Heating in Copenhagen.....	(Apr. 1936)
District Heating System Employs Electric Boiler.....	(June 1936)
80,000 Tons of Coal-Oil.....	(Apr. 1936)
Embrittlement Tests for Turbine Steels.....	(Sept. 1935)
Employs Steam Compressor on Heating System.....	(Sept. 1935)
Errors in Coal Analysis.....	(Oct. 1935)
Experience with British High-Pressure Station.....	(Jan. 1936)
Extension to Dalmarnock.....	(Jan. 1936)
Extension to Thorpe Station.....	(May 1936)
Fineness and Flame Propagation.....	(July 1935)
First Fusion Welded Boiler Drums in Great Britain.....	(July 1935)
Generating at 33,000 Volts.....	(Dec. 1935)
German High-Pressure Boilers.....	(Mar. 1936)
German High-Pressure Industrial Power Plant.....	(Dec. 1935)
German Plant Installs Reciprocating Engines for High-Pressure Steam.....	(Nov. 1935)
Germany to Standardize Steam Pressures and Temperatures.....	(June 1936)
Grid Reduces Reserve Capacity.....	(Dec. 1935)
High Steam Pressures and Temperatures in German Merchant Marine.....	(Dec. 1935)
Hollow Shaft Pump Motor.....	(July 1935)
Hot-Water Accumulator on District Heating System.....	(Jan. 1936)
$\text{H}_2\text{CO}_3$ Corrosion in High-Pressure Boilers.....	(Oct. 1935)
Industrial Power in England.....	(Aug. 1935)
Labyrinth Valve Seat.....	(Sept. 1935)
Large Extraction Turbine in Paper Mill.....	(Jan. 1936)
Largest Turbine-Generator in Europe.....	(Feb. 1936)
Large Traveling Grate Stokers.....	(July 1935)
Marine Boiler Installations.....	(May 1936)
New British Pulverizing Mill.....	(Mar. 1936)
New High- and Low-Level Alarm.....	(Oct. 1935)
New Swansea Station Put in Service.....	(Aug. 1935)
Nuevo Puerto Power Station.....	(Nov. 1935)
Oil from Coal.....	(Oct. 1935)
Operating Results at Battersea.....	(Apr. 1936)
Output of German Boiler Manufacturers.....	(Feb. 1936)
Peak Load Stations.....	(Nov. 1935)
Performance of Durr Boilers.....	(July 1935)
Pipe Joints and Caustic Embrittlement Being Investigated in England.....	(Aug. 1935)
Properties of Low-Nickel Steels Containing Manganese.....	(Oct. 1935)
Pulverized Coal Distributor.....	(Nov. 1935)
Pulverized Coal Firing in Australia.....	(Feb. 1936)
Radiovisor Smoke Indicator.....	(Mar. 1936)
Recirculating Flue Gases.....	(Apr. 1936)
Recommends Subsidizing Research in Coal Processing.....	(Dec. 1935)
Reinforced Concrete Chimneys.....	(May 1936)
Report on the Grid System.....	(June 1936)
Secondary Combustion Caused Stack Failure.....	(Feb. 1936)
Setting for High-Moisture Fuel.....	(June 1936)
Small Plant Shows High Efficiency.....	(Feb. 1936)
South Africa's Largest Steam Station.....	(Nov. 1935)
Specific Heats of Gases and Vapors at High Temperatures.....	(Jan. 1936)
Superposition in the Marine Field.....	(Oct. 1935)
Unit Power Plants.....	(May 1936)
Use of Peat in Europe.....	(Aug. 1935)
Velox Boilers for Oslo Steam Station.....	(Sept. 1935)
Water Softening on the "Queen Mary".....	(Sept. 1935)

